

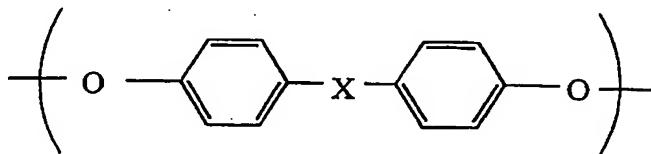
Appln No. 10/813,042
Reply to the Office Action dated August 5, 2005

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims

Claim 1. (Previously Presented) An aromatic polycarbonate having a viscosity-average molecular weight of 16,000 or higher that is obtained by the transesterification method, wherein the ratio of the weight-average molecular weight (Mw) to number-average molecular weight (Mn), as measured by gel permeation chromatography and calculated for standard polystyrene (Mw/Mn) of the aromatic polycarbonate, is in the range of 2.8 to 4.5 and wherein the proportion of the number of moles of all branched structural units to 1 mol of structural units represented by formula (1) is higher than 0.3 mol % and not higher than 0.95 mol %:

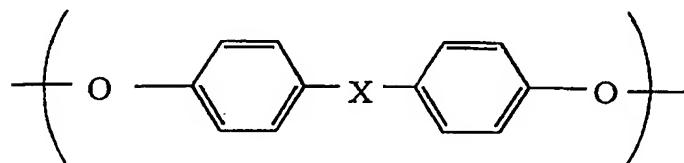


wherein X is a member selected from the group consisting of a single bond, an alkylene group having 1 to 8 carbon atoms, an alkylidene group having 2 to 8 carbon atoms, a cycloalkylene group having 5 to 15 carbon atoms, a cycloalkylidene group having 5 to 15 carbon atoms and bivalent group selected from the group consisting of -O-, -S-, -CO-, -SO- and -SO₂-.

Claim 2. (Previously Presented) An aromatic polycarbonate having a viscosity-average molecular weight of 16,000 or higher that is obtained by the transesterification method,

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wherein the ratio of the viscosity-average molecular weight (M_v) calculated using the following formula (2) to the number-average molecular weight (M_{n'}) calculated from the number of all molecular ends (M_v/M_{n'}) of the aromatic polycarbonate is in the range of 1.8 to 3.5 and wherein the proportion of the number of moles of all branched structural units to 1 mol of structural units represented by formula (1) is higher than 0.3 mol % and not higher than 0.95 mol %:

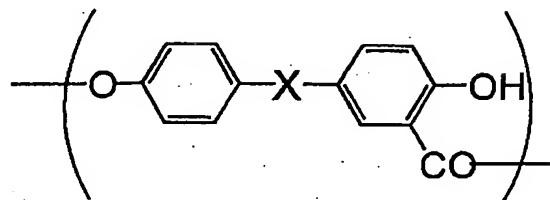


$$\eta_{sp}/C = [\eta] \times (1 + 0.28\eta_{sp}) \quad \text{formula (2)}$$
$$[\eta] = 1.23 \times 10^{-4} \times (M_v)^{0.83}$$

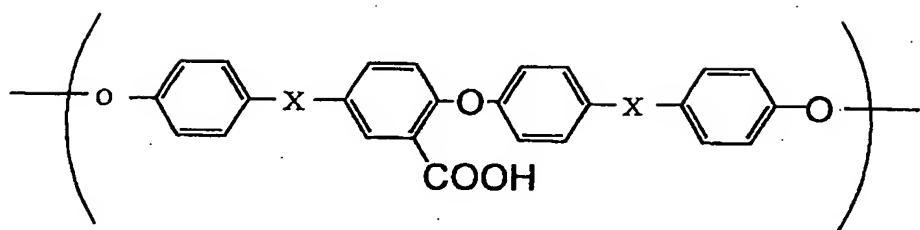
wherein η_{sp} is the specific viscosity of a methylene chloride solution of the polycarbonate resin as measured at 20° C and C is the concentration of this methylene chloride solution, the methylene chloride solution being one having a polycarbonate resin concentration of 0.6 g/dl.

Claim 3. (Previously Presented) The aromatic polycarbonate as claimed in claim 1, wherein branched structural units are represented by formulae (3) to (6):

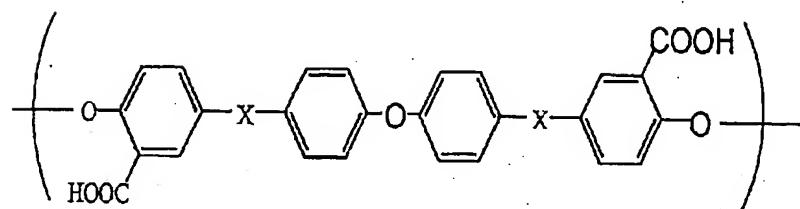
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formula (3)

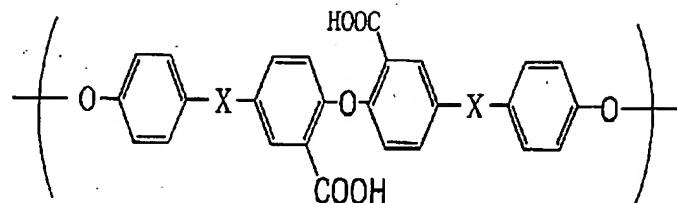


formula (4)



formula (5)

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formula (6)

wherein X is a member selected from the group consisting of a single bond, an alkylene group having 1 to 8 carbon atoms, an alkylidene group having 2 to 8 carbon atoms, a cycloalkylene group having 5 to 15 carbon atoms, a cycloalkylidene group having 5 to 15 carbon atoms and a bivalent group selected from the group consisting of -O-, -S-, -CO-, -SO- and -SO₂-.

Claim 4. (Currently Amended) The aromatic polycarbonate as claimed in claim 1, wherein the aromatic polycarbonate is a branched aromatic polycarbonate whose structure is characterized by the value represented by of α in the following formula (7) which is in the range of from 0.03 to 0.3:

$$\alpha = p^2 \rho / [1 - p^2(1 - \rho)] \quad . \quad \text{formula (7)}$$

wherein α represents the probability that a molecular end is a branched unit; p represents the probability that n repeating units are yielded; and ρ represents the number of branched units.

Claim 5. (Previously Presented) The aromatic polycarbonate as claimed in claim 4.

wherein the value represented by α ranges from 0.05 to 0.2.

Claim 6. (Previously Presented) The aromatic polycarbonate as claimed in claim 5, wherein the value represented by α ranges from 0.06 to 0.15.

Claim 7. (Previously Presented) The aromatic polycarbonate as claimed in claim 1, which is an aromatic polycarbonate having a viscosity-average molecular weight of 24,000 or higher.

Claim 8. (Previously Presented) The aromatic polycarbonate as claimed in claim 1, which has a flow rate ratio (MVR-R), as represented by the following formula (8) and determined in accordance with JIS K 7210, in the range of 15 to 45.

$$\text{MVR-R} = \text{MVR}(21.6)/\text{MVR}(2.16) \quad \text{formula (8)}$$

Claim 9. (Previously Presented) The aromatic polycarbonate as claimed in claim 1, wherein the proportion of the number of moles of the branched structural units represented by formula (5) to 1 mol of the structural units represented by formula (1) ranges from 0.0001 to 0.15 mol %.

Claim 10. (Previously Presented) The aromatic polycarbonate as claimed in claim 1, wherein the proportion of the number of moles of the branched structural units represented by formula (6) to 1 mol of the structural units represented by formula (1) ranges from 0.0001 to 0.15 mol %.

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Claim 11. (Previously Presented) A process for producing the aromatic polycarbonate as claimed in claim 1 by reacting one or more carbonic diesters with one or more aromatic dihydroxy compounds, wherein the aromatic polycarbonate is prepared by the action of at least one alkali metal compound and/or at least one alkaline earth metal compound in an amount of from 1.1 to 6 μ mol in terms of metal content per mole of the aromatic dihydroxy compounds.

Claim 12. (Previously Presented) The process for aromatic-polycarbonate production as claimed in claim 11, wherein the amount of the alkali metal compound and/or alkaline earth metal compound ranges from 1.3 to 3.8 μ mol in terms of metal content per mole of the aromatic dihydroxy compounds.

Claim 13. (Previously Presented) The process for aromatic-polycarbonate production as claimed in claim 11, wherein the process is a process for producing a branched aromatic polycarbonate which comprises the step of conducting polymerization in at least two polymerizers, and wherein the final polymerizer is of the horizontal type and the reaction temperature in the final polymerizer is in the range of 280 to 300° C.

Claim 14. (Previously Presented) An aromatic polycarbonate composition which comprises the aromatic polycarbonate as claimed in claim 1 and a carbonic diester compound, wherein the content of the carbonic diester compound is 200 ppm by weight or lower.

Claim 15. (Previously Presented) An aromatic polycarbonate composition which

comprises the aromatic polycarbonate as claimed in claim 1 and a dye, wherein the dye comprises one or more compounds selected from Phthalocyanine Blue dyes and anthraquinone dyes, the content of the dye being from 0.01 ppm by weight to 100 ppm by weight.

Claim 16. (Previously Presented) A hollow container obtained by the blow molding of the aromatic polycarbonate as claimed in claim 1.

Claim 17. (Previously Presented) A hollow container obtained by the blow molding of the aromatic polycarbonate composition as claimed in claim 14.

Claim 18. (Previously Presented) The hollow container as claimed in claim 16, which is a bottle for a dairy product, a bottle for a refreshing beverage, or a bottle for water.

Claim 19. (Currently Amended) The process for aromatic-polycarbonate production as claimed in claim 12, wherein the process is a for producing the production of a branched aromatic polycarbonate which comprises the step of conducting polymerization in at least two polymerizers, and wherein the final polymerizer is of the horizontal type and the reaction temperature in the final polymerizer is in the range of 280 to 300° C.

Claim 20. (Previously Presented) A hollow container obtained by the blow molding of the aromatic polycarbonate composition as claimed in claim 15.

Claim 21. (Previously Presented) The hollow container as claimed in claim 17, which

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is a bottle for a dairy product, a bottle for a refreshing beverage, or a bottle for water.